Appl. No. 09/709,774 Amdt. dated June 25, 2003 Reply to Office Action of March 25, 2003

This listing of claims will replace all prior versions, and listings of claims in the application:

## **Listing of Claims:**

- 1-17. (Canceled)
- 18. (Currently amended) A polynucleotide encoding a fusion protein, the fusion protein comprising,
  - (i) an immunogenic peptide, a native protein fragment or a particle, and,
- (ii)—at least one pan DR binding peptide selected from the formula R<sub>1</sub>-R<sub>2</sub>-R<sub>3</sub>-R<sub>4</sub>-R<sub>5</sub>, wherein:

 $R_1$  is an amino acid followed by alanine or lysine;

R<sub>2</sub> is selected from the group consisting of tyrosine, or phenylalanine;

R<sub>3</sub> is 3 or 4 amino acids, wherein each amino acid is independently selected from the group consisting of alanine, isoleucine, serine, glutamic acid and valine;

R<sub>4</sub> is selected from the group consisting of threonine-leucine-lysine, lysine-threonine, or tryptophan-threonine-leucine-lysine (SEQ ID NO:16); and,

R<sub>5</sub> consists of 2 to 4 amino acids followed by an amino acid wherein each of the 2 to 4 amino acids is independently selected from the group consisting of alanine, serine, and valine (SEQ ID NOS:17-22, representing the pan DR bidding peptide where R<sub>4</sub> in the pan DR binding peptide consists of tryptophan-threonine-leucine-lysine (SEQ ID NO:16)).

- 19. (Currently amended) <u>An expression vector comprising the The polynucleotide of claim 18, wherein the polynucleotide is comprised by an expression vector.</u>
- 20. (Previously added) The polynucleotide of claim 18, wherein the fusion protein comprises multiple pan DR peptides.
- 21. (Previously added) The polynucleotide of claim 18, wherein the fusion protein comprises a homopolymer of pan DR peptides.



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- 22. (Previously added) The polynucleotide of claim 18, wherein the fusion protein comprises a heteropolymer of pan DR peptides.
- 23. (Currently amended) The polynucleotide of claim 18, wherein the immunogenic peptide, native protein fragment or particle fusion protein further comprises a heteropolymer with repeating units.
- 24. (Currently amended) The polynucleotide of claim 18, wherein the immunogenic peptide, native protein fragment or particle fusion protein further comprises a T helper peptide.
- 25. (Currently amended) The polynucleotide of claim 18, wherein the immunogenic peptide, native protein fragment or particle fusion protein further comprises an antibody-inducing peptide.
- 26. (Currently amended) The polynucleotide of claim 18, wherein the immunogenic peptide, native protein fragment or particle fusion protein further comprises a CTL-inducing peptide.

27-65. (Withdrawn)